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Sponsorship effectiveness on betting intention-unobserved segmentation

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This study explores how factors of perceived authenticity (including continuity, integrity, and credibility) and sponsorship congruence impact attitudes toward sponsors and subsequent sports betting intentions and behaviors. We consider the moderating effect of sponsorship type (conventional versus commercial gambling providers) to identify differences among sponsors. We also employed latent segmentation analysis (a posteriori) to identify latent segments. The results indicate that segment differences are primarily related to the perceived similarity between sponsors and sports events. Fans of age exhibit less brand self-congruence, which negatively affects perceptions of authenticity and attitude toward the sponsor. Conversely, older fans perceive greater authenticity and positivity toward sponsors when there is congruence between the sponsor, the event, and fans' identity. The sponsor type (conventional or gambling provider) did not differ significantly.

Introduction

The sports betting industry is experiencing constant expansion and is deeply rooted in a continuous process of innovation and development that seeks to perfect strategies and achieve consumer loyalty. In fact, the global legal sports betting market reached a value of \$40 billion in 2020, with the Asian market being the largest at \$19.6 billion, followed by the European market at \$15.2 billion (UNODC, 2021). This increase in the popularity of sports betting can be attributed to marketing strategies, such as sports sponsorships, implemented by commercial gambling providers (CGPs) (Etuk et al. 2022). Sports sponsorship is one of the main strategies for promoting a brand and establishing lasting relationships with consumers (Silva and Verissimo, 2020). At the 2018 FIFA World Cup, 17% of all advertisements were related to sports betting (Newall et al. 2019). Given this increase, it is crucial to understand CGP strategies in the context of sports to attract consumers.

Sports betting can carry risk factors and have negative effects on people, including negative moods, depression, feelings of guilt, anxiety, gambling problems, and physical and financial health problems (Gökçe Yüce et al. 2022). Therefore, it is essential to study how CGPs influence sports fans' behavior through sponsorship. CGPs focus on improving brand perception and reflecting consumers' psychological appreciation and gambling intentions (Napoli et al. 2014). Gambling intention, which is defined as an individual's willingness and motivation to gamble, is a key determinant of gambling behavior. According to the Theory of Planned Behavior (TPB)

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(Ajzen, 1991), intention is the immediate antecedent of behavior. In the context of gambling, positive attitudes toward gambling, perceived social approval, and beliefs in gambling control can increase the intention to gamble, thereby increasing the likelihood of engaging in gambling behavior (Moore and Ohtsuka, 1999). Therefore, gambling intention is a key predictor of actual gambling behavior, and it is essential to understand and prevent gambling-related problems.

Gaming behavior can vary significantly among different consumer groups due to sociodemographic, psychological, and cultural factors. For example, studies have found that men tend to gamble more frequently and spend more money on gambling than women (Hing et al. 2015). Furthermore, young people and those with lower educational and socioeconomic levels are at higher risk of developing gambling-related problems (Welte et al. 2015). Cultural differences can influence gaming behavior (Li et al. 2021). Therefore, it is necessary to analyze this phenomenon by understanding the underlying differences among individuals to better explain this behavior.

Although CGP sponsorships of sporting events are becoming more widespread, there is a lack of research examining their impact on the attitudes and behaviors of sports fans. Bunn et al. (2019) and Rossi et al. (2021) point to the urgent need to understand how these sponsorships affect the attitudes and behaviors of fans. Until now, the focus has mainly been on advertising strategies and promotional narratives of sponsorship (Killick and Griffiths, 2022), leaving a clear research opportunity on how bookmaker advertisements are presented at sponsored sports events and how they influence consumer behavior.

Therefore, understanding how consumers perceive these brands is important. Charlton and Cornwell (2019) mentioned aspects such as brand loyalty (continuity), consumer trust (credibility), and integrity. Added to these elements is congruence, which explains the logical and balanced connection between the sponsor and sponsor to measure consumer attitudes and behaviors (Alguacil et al. 2019). Therefore, this study utilizes these elements to identify their influence on attitudes toward sponsors in the context of sports betting and how these attitudes affect betting behavior.

It is important to investigate this field to gain economic, social, and theoretical perspectives. This study considers relevant aspects of sponsors, such as brand authenticity, which refers to the genuine perception of consumers (Charlton and Cornwell, 2019), originality, spontaneity (Akbar and Wymer, 2017), reliability, credibility (Morhart et al. 2015), congruence (Eggers et al. 2013), and coherence and integrity (Morhart et al. 2015; Yasri et al. 2022). The interaction of these factors is crucial for CGPs to successfully establish relationships with customers (Killick and Griffiths, 2022).

This research aims to analyze the influence of perceived authenticity (continuity, integrity, and credibility) and sponsorship congruence on the attitude toward the sponsor and its subsequent effect on sports betting intention and behavior, considering the moderating role of sponsor type (conventional vs. CGPs) and identifying possible differences among fan segments. We propose a theoretical model that incorporates brand authenticity dimensions (continuity, integrity, and credibility), perceived congruence, attitude toward the sponsor, betting intention, and betting behavior. In addition, we analyze unobserved heterogeneity to reveal significant differences in model relationships that cannot be attributed to observable sample characteristics. We rely on constructs whose validity has been supported in the literature to establish the determinants that influence gamblers' intentions and behavior.

This study contributes to the literature in several ways. First, we identify fan segments that are not evident at first glance based

on their behavioral patterns in the realm of sports betting. Second, we discover how the type of sponsorship message plays a moderating role in image transfer and intentionality processes. Finally, we examine the impact exerted by variables linked to perceived sponsorship authenticity on attitudes toward the sponsor and betting intention and behavior—an aspect that has remained unexplored in research to date.

This research is structured as follows. First, we explain the theoretical framework that supports the constructs from which a series of hypotheses are developed to constitute the proposed model. Next, we describe our research methodology. Finally, the study results are presented and analyzed. Finally, the theoretical and management implications and study limitations are addressed in the conclusions.

Literature review

Perceived brand authenticity. Perceived brand authenticity refers to adherence to delivering what has been promised, and consumers are likely to trust brands that perform well (Morhart et al. 2015). Brand authenticity reflects “consumers' mental evaluation of authenticity attributed to a brand (Napoli et al. 2014). The dimensions of brand authenticity include individuality, originality, and naturalness (Akbar and Wymer, 2017); credibility and reliability (Morhart et al. 2015); consistency (Eggers et al. 2013); and continuity, integrity, and symbolism (Morhart et al. 2015; Yasri et al. 2022; Charlton and Cornwell, 2019). Napoli et al. (2014) demonstrated that quality commitment, heritage, and sincerity are vital dimensions.

Manthiou et al. (2018) used four indicators to measure brand credibility: (a) having a clear philosophy consistent with what the brand promises, (b) not promising anything that does not align with the brand's essence and character, (c) keeping the brand's promises and not pretending to be something else, and (d) acting on the brand's promises, which are not contrary to the target market and their self-esteem. Eggers et al. (2013) used three dimensions: congruency, consistency, and customer orientation—to measure brand authenticity.

Morhart et al. (2015) conducted a comprehensive study on brand authenticity, defining it as how consumers perceive a brand's loyalty to itself, its loyalty to consumers, care and responsibility, and its ability to support consumer loyalty. They extracted four key dimensions that are crucial for a brand's success and its relationship with consumers: continuity, credibility, integrity, and symbolism. However, because of the need for a more detailed measurement criterion, they focused on three dimensions, continuity, credibility, and integrity, based on their research objectives and the existing literature.

In this context, perceived brand authenticity refers to how genuine and true fans perceive a sponsor brand to be, particularly in relation to its association with a sporting event. It is about whether the brand's values, actions, and image align with the spirit and essence of the sport.

Brands that have continuity over time and long-term relationships with customers are often considered trustworthy and credible. For example, the Betfair brand, a reputable brand in the sports gambling industry, has successfully attracted new customers and retained current customers by emphasizing the continuity and history of its brand.

Continuity. When considering the factors that establish brand credibility, continuity often takes forefront. In the sports gambling industry, continuity is widely recognized as a crucial element of brand authenticity and is known to effectively attract and retain both new and existing customers. This perspective is underscored in Morhart et al.'s (2015) research, which defines

continuity as the quality of timelessness, historical significance, and the ability to transcend fleeting trends. Brands that uphold this sense of continuity while nurturing enduring customer relationships tend to earn a reputation for trustworthiness and credibility (Beverland, 2006).

This reflects the sponsor's history, longevity, and consistent presence within the sporting world. A brand with a long-standing Commitment to a sport is perceived as more authentic and trustworthy, as its involvement transcends fleeting trends.

For instance, Walraven et al. (2014), drawing data from 25,000 customers across five countries, demonstrated a noticeable increase in awareness concerning the primary sponsor of the European Football Union over a multi-year measurement period. Consequently, conceptual parallels exist between brand continuity and heritage, as noted by Charlton and Cornwell (2019). Both concepts not only encompass a brand's historical roots and stability over time but also allude to the potential for its continued presence in the future.

Continuity is a vital component of the sports betting industry and is essential for building customer trust and expanding the customer base. When a sports betting company consistently delivers on its promises, maintains transparent and long-lasting relationships with its customers, and portrays long-term commitment, it establishes a positive brand image that enhances customer trust (BBC, 2023). Furthermore, the link between brand authenticity, particularly continuity, and customers' attitudes toward sponsors and their participation in sports betting activities is noteworthy. Customers who trust credible brands exhibit loyalty and are more likely to engage in sports betting. Therefore, continuity is essential to shape and maintain a positive brand image, attract and retain customers, boost trust, attract new sponsors, and increase customer engagement in sports CGPs. This underlines the formulation of the following hypothesis:

H1: Continuity has a direct and positive relationship with attitudes toward the sponsor.

Integrity. Integrity is another important dimension of brand authenticity, and in the gambling and sports sponsorship industry, it has been introduced as a fundamental and vital concept for maintaining customer trust in a brand. This demonstrates ethical purity and brand responsibility in adhering to reasonable values. With the growing industry, brands are seeking to attract more customers, and sports sponsorships have been recognized as a practical solution (Morhart et al. 2015). Apple and Peace Green are examples of brands that use integrity in their communications. However, brands that adhere to integrity and are committed to ethical values in their relationships with business partners are respected and appreciated by customers, which helps attract and maintain their trust.

As a brand, integrity should be considered as a fundamental value and adhered to in relationships with business partners, customers, and the community. To maintain integrity, individuals must carefully follow its values and avoid inappropriate behaviors. Additionally, in the event of problems, one must speak clearly with their partners and seek solutions that can help maintain integrity and, embody ethical behavior, adhere to values and responsible practices. Fans perceive a sponsor as more authentic if it acts with fairness, transparency, and respect for the sport and its fans.

Research on integrity in sponsorship and marketing has focused more on the failure of sponsored properties (Chien et al. 2016) or celebrities (Miller and Laczniak, 2011) in maintaining brand value. However, partnership integrity is a two-way relationship and a double-edged sword that must be considered in both directions. In the sports industry, research and

public attention are focused on the inappropriate behaviors of athletes, teams, and leagues. However, the failure of both organizations destroys their integrity. Integrity or failure is evident when brands mistreat their partners (Pappu and Cornwell, 2014).

Beverland and Farrelly (2010) describe integrity as brand adherence to maintained values. This dimension parallels the disinterest in authentic brands presented by Holt (2002) and the virtuousness presented by Beverland and Farrelly (2010). To have a reputable brand, brands must act without an economic goal and be published by individuals who inherently have deep motivation and maintain their values (Holt, 2002). Pappu and Cornwell (2014), Uysal and Okumuş (2022), and Xu et al. (2022) mentioned a direct relationship between integrity and sponsor regarding customer satisfaction. Chien et al. (2016) referred to the importance of integrity in maintaining brand value and attracting customers into the gambling and sports sponsorship industry in their research. Brands that adhere to their values and maintain integrity in their communications attract more customers, have a positive attitude toward sponsorship, and increase customer trust and satisfaction. Integrity is a long-term solution for communication problems and potential future challenges. Therefore, the following hypothesis is formulated:

H2: Integrity has a direct and positive relationship with attitudes toward the sponsor.

Credibility. Credibility in a brand context emphasizes fulfilling promises. Morhart et al. (2015) defined credibility as "the transparency and honesty of a brand toward consumers and its ability and willingness to fulfill its claims." While this aspect is not typically discussed in financial support, it is crucial in marketing when considering the relationship between match-ups and the attitudes of financial supporters (Rifon et al. 2004). In marketing, honesty and transparency are essential for success, even though the term 'credibility' may not be explicitly used. Research indicates that people closely monitor management-level decisions regarding financial support, which Woisetschläger et al. (2017) suggest is driven by audience expectations related to the concept of sponsorship. In essence, people evaluate how partnerships are presented to their audiences based on promises rooted in judgment. In the literature, credibility is depicted as a complex construct, often seen as a combination of endorser and corporate credibility (Lafferty et al. 2002; Charlton and Cornwell, 2019; Morhart et al. 2015). Credibility centers on the sponsor's ability to fulfill promises and deliver on expectations. A credible sponsor is seen as dependable, trustworthy, and honest in its dealings with the sport and its fans.

In summary, credibility, whether in the context of an individual endorser or a brand, is founded on a combination of key attributes such as attractiveness, trustworthiness, and expertise. For instance, a brand with a strong reputation and credibility can enhance its trustworthiness and reliability in the eyes of its audience, extending this perception across a diverse range of products and services. Brand credibility and trustworthiness can be further bolstered through tailored advertising and marketing strategies that align with the audience's understanding and deliver on the brand's promises. In the world of sports sponsorship, attracting financial support and achieving advertising goals hinge on maintaining transparency and honesty when engaging with the target audience. The importance of brand trust and credibility cannot be overstated for sports sponsors with an established brand history within the sports industry. Such a history allows sponsors to project an image of heightened credibility and trustworthiness, impacting the audience's perception and their decision to engage with the brand.

To date, only a few studies have clarified the role of sponsor credibility in financial support. Rifon et al. (2004) found that sponsor credibility increases positive attitudes toward sponsors, whereas Wang et al. (2011) showed that sponsor credibility has a positive effect on the sponsor's brand equity. Wang (2017) also demonstrated that sponsor brand identification and credibility affect attitudes toward the sponsor and mediate these relationships. Hence, credibility is one of the most critical factors in determining attitudes toward a sponsor and its brand. This leads to the third hypothesis of this study.

H3: Credibility has a direct and positive relationship with attitude towards the sponsor.

Congruency. The concept of congruence was first introduced in social psychology to examine memory and attitude formation (Jagre et al. 2001). Congruence refers to the perceived alignment between two objects. Humans evaluate different objects and develop attitudes based on perceived coherence between them (Alonso-Dos-Santos et al. 2023). This concept focuses on the perceived fit or compatibility between the sponsor and the sponsored event. High congruence exists when the sponsor's brand image, values, and target audience align with the characteristics and values of the sporting event. Congruence between a sponsor and an entity, also known as "fit," is recognized as the most widely used construct in the sponsorship literature (Wang, 2017). The concept of congruence in the context of sponsorship has various definitions. It is defined based on relatedness, relevance (Johar and Pham, 1999), and compatibility (Ruth and Simonin, 2003). In other words, perceived congruence can be defined as a consumer's perception of the similarity between a sponsor and an entity (e.g., a sports team or event; Speed and Thompson, 2000; Rifon et al. 2004).

Suppose a sports fan's perception of the match between their favorite team and the sponsor brand (i.e., congruence) is high. In this case, they likely infer the sponsor's humanistic motives (Rifon et al. 2004) and reduce doubts and skepticism toward the sponsor, ultimately creating a sense of sponsor/brand credibility (Rifon et al. 2004). This finding is consistent with the theory of cognitive dissonance, which suggests that consumers determine their behavior based on perceived consistency because inconsistencies cause cognitive dissonance (Festinger, 1957). Consumers prefer brands with advertising appearances that are consistent with their self-concepts. This preference is because such an appearance makes a brand appear more authentic: "Today people buy based on whether a product matches their self-concept or not. This alone determines the authenticity of the brand" (Fritz et al. 2017).

Similarly, brands with a communication style that is congruent with consumers' perceptions are expected to reflect the individual and thus be interpreted as unique, genuine, and reliable. Findings in sports and non-sports sponsorships support the hypothesis that perceived congruence between the sponsor and property has a positive effect on sponsor credibility (Alonso-Dos-Santos et al. 2023; Rifon et al. 2004). Similar findings from Olson and Thjomøe (2011) demonstrate that sponsor-object fit leads to the perception of sponsor sincerity. Wang et al. (2011) also showed that perceived congruence affects sponsor credibility. Referring to social comparison theory, and under such conditions, a type of friendship and a positive attitude toward the sponsor are created and developed (Speed and Thompson, 2000); therefore, the sponsor's credibility, one can say integrity, and continuity are formed (Rifon et al. 2004; Wang et al. 2011). Ultimately, this leads to the fourth hypothesis:

H4: Congruence has a direct and positive relationship with a) continuity, b) integrity, and c) credibility.

Congruence is recognized as a key motivator for purchases and a significant predictor of consumer behavior (Sirgy, 1986). This is expected to influence attitudes toward the sponsor, gambling, and the decision to gamble. However, congruence's effects on consumer attitudes may vary in different situations. Research suggests that congruence generally leads to positive attitudes toward brands and sponsors (Claiborne and Sirgy, 2014). Some studies have indicated that attitudes toward the sponsor, influenced by congruence and articulation, can vary (Wang, 2017; Alonso-Dos-Santos et al. 2023), and congruence can enhance sponsorship aspects, brand attitudes, and image extension, ultimately affecting the decision to gamble. In the field of theater, the results differ (Li and Huang, 2015). However, Previous studies on financial support have also demonstrated that congruence between the sponsor and the event results in positive consumer attitudes (Rifon et al. 2004; Hing et al. 2014). These findings support H5.

H5: Congruency has a direct and positive relationship with attitude toward the sponsor.

Attitude toward the sponsor and gambling intention. The TPB proposed by Ajzen (1991) provides a solid theoretical framework for predicting and understanding behavior. According to this theory, intention is the most important determinant of behavior. In the context of gambling, the model predicts that the decision to gamble is a function of individuals' attitudes toward gambling and their related subjective norms, with attitudes having a significant effect on the decision to gamble. Attitudes are formed after the development of a continuous response to a stimulus and indicate the effect of attitudes (sponsorship and gambling) on behavior (decision to gamble) (Ko and Kim, 2014).

One of the main objectives of empirical and survey research in the field of sponsorship is the importance of the concept of AttSpo (Mohammadi and Ghysvandi, 2022). AttSpo, or the attitude toward gambling, is one of the main variables in advertising and gambling studies in general and sponsorship in particular (Ko and Kim, 2014). Sponsors who have a favorable image receive a positive response to sponsorship compared to those who do not (Speed and Thompson, 2000).

Previous studies have shown that TRA/TPB can explain decision-making and gambling behavior, mainly when used for attitudes toward gambling, and can predict the likelihood of an individual starting to gamble (Alonso-Dos-Santos et al. 2023). In addition, Miller and Howell (2005) and Moore and Ohtsuka (1999) showed that attitudes towards gambling and subjective norms significantly predict the decision to gamble.

Hing et al. (2014) showed that a positive attitude towards gambling sponsors and gambling promotions in TV advertisements is associated with adolescent decision-making about gambling and early initiation of gambling, with subsequent potential for gambling-related problems. Hence, AttSpo may positively impact attitudes toward gambling and gambling intention or be a significant predictor. Therefore, hypotheses six and seven were formed:

H6: Attitude toward the sponsor is directly and positively correlated with gambling intention.

H7: Gambling intention directly and positively correlates with gambling behavior (Gambeh).

Moderating effect. Previous research has mainly focused on the impact of conventional sponsorships, such as those in sports, cinema, and television, on the attitudes and behaviors of audiences (Dean and Biswas, 2001). Congruency, which refers to the alignment between the supported product or brand and the sponsored brand, has been identified as a critical factor in the

Table 1 Demographic information of respondents.

Variable	Categories	Percentage
Age	18-28	27%
	29-39	32%
	40-50	23%
	>51	18%
Gender	Male	61%
	Female	39%
Education level	Primary	0.3%
	High school	53%
	Bachelor's degree	19%
	Master's degree	0.7%
	Prefer not to say	27%
Employment status	Employed full-time	13%
	Employed part-time	76%
	Students	5.9%
	Seeking opportunities	1.4%
	Prefer not to say	3.7%
Family yearly income	Less than 25 K	13.8%
	26 K-50 K	40%
	51 K-100 K	37.6%
	>100 K	5.2%
	Prefer not to say	3.4%

effectiveness of such sponsorships (Till and Busler, 2000). However, there is a need to investigate the effects of other types of sponsorship, such as bet sponsorship in the online betting industry (Killick and Griffiths, 2021), on audience attitudes and behavior.

Given the limited research on the effects of bet sponsorship on audience attitudes and behavior, this study examines the moderating effect of sponsorship type (conventional/CGPs) on the relationship between congruency and AttSpo as well as between AttSpo and Bet Intention (BetInt). Accordingly, the following hypothesis was formulated:

H8: Type of sponsorship moderates the relationship (a) between congruency and attitude toward the sponsor and (b) between attitude towards the sponsor and bet intention.

Methodology

Sample. Samples were collected from the United States of America using the Amazon Turk system. The survey was hosted by the Qualtrics system. The database was filtered based on response time, and outliers were removed using the Mahalanobis index. The final sample comprised 583 participants (original sample, $n = 612$). Table 1 presents the sociodemographic indicators of the final sample.

Instruments. Continuity, integrity, and credibility were adapted from Charlton and Cornwell (2019). The instrument measuring perceived congruence (perceived fit) was adapted from Dreisbach et al. (2021) and consisted of three items. The scales for attitude toward gambling (five items) and intention to gamble (three items) were adopted from Leng et al. (2021). The attitude scale towards the sponsor brand was based on Na and Kim (2013) and contained three items. The single-item gambling behavior scale was adapted from Moore and Ohtsuka (1999). A seven-point Likert-type scale was used for all variables. The study was conducted in accordance with the principles of the Declaration of Helsinki and was approved by the University Ethics Committee. All participants were duly informed of the study and provided informed consent.

Stimulus. Respondents were exposed to one of two stimuli: a sports poster sponsored by Adidas and a poster sponsored by Bwin (CGP sponsor). We followed the same poster design procedure as Alonso Dos Santos et al. (2020). Brands were chosen by a pre-sample group other than the final sample as congruent brands and CGPs most likely to be sponsors of a tennis event. A congruent sponsor rather than an incongruent sponsor was chosen because of its general position in the literature advocating the image transmission benefit of congruent sponsors (Devlin and Billings, 2018). An example of the posters can be found here: <https://bit.ly/3YGOIno>. Notably, the sports posters were adaptations of authentic posters and did not feature real or famous individuals who might influence attitudes toward the participating brands. Respondents were randomly assigned to one of the two posters; after viewing the poster for 10 s, they were directed to the joint survey.

Method. Partial least squares structural equation modeling (PLS-SEM) was used to explore the relationships among the proposed constructs. PLS-SEM is a preferred method for testing theories because it effectively measures and evaluates the relationships between constructs or latent variables using observable variables (Becker et al. 2022). Structural equation models (SEMs) consist of two distinct stages, each estimated separately. The first stage, referred to as the measurement model, delineates the connections between the latent variables or theoretical constructs. Through an analysis typically involving principal component analysis, this stage estimates the indices associated with each latent variable. The second stage, referred to as the structural model, encompasses the causal relationships established among latent variables. These relationships are posited as hypotheses, and the aim is to either confirm or refute them by estimating relationship coefficients using Ordinary Least Squares (OLS) (Amofah and Saladrignes, 2022).

Following this analysis, unobserved heterogeneity was employed to uncover significant differences within the model's relationships, particularly when these differences could not be attributed to observable sample characteristics, such as gender or age group (Hair et al. 2016). This approach ensured the impartiality of the analysis results (Matthews et al. 2016). To achieve this, this study used the PLS prediction-oriented segmentation (PLS-POS) method, which prioritizes data-driven segmentation over specific variables. Finite Mixture PLS (FIMIX-PLS) plays a crucial role in this process because PLS-POS methodology lacks an index for selecting the optimal number of segments (Alonso Dos Santos et al. 2018). Once significant underlying differences among segments were identified, multi-group analysis (MGA) was conducted to validate these findings.

MGA is a commonly used approach for comparing groups, employing advanced techniques to examine differences between categorical variables (Cheah et al. 2023). In this study, MGA enabled the identification of variables that were not initially observed to exhibit significant differences within the model estimation, thereby providing valuable insights into betting behavior analysis.

Results

Manipulation check. Participants perceived the Adidas poster ($M = 5.627$, $SD = 0.163$) to be more congruent with the sporting event than the Bwin poster ($M = 4.731$, $SD = 0.122$) [$F(1,207) = 26.968$, $p < 0.001$]. This result aligns with previous experiments on non-sports product sponsorship, such as alcohol (Alonso Dos Santos et al. 2020) and gambling (Alonso-Dos-Santos et al. 2023). This difference allowed us to observe how the level of congruence influenced the sponsor's attitude. Event

Table 2 Evaluation of the measurement model.

Code	Cronbach's α	AVE	VI	Weigh	Loading
AttSpo	0.942	0.811			
AttSpo_1			5.708	0.228	0.927***
AttSpo_2			5.359	0.222	0.921***
AttSpo_3			2.566	0.216	0.854***
AttSpo_4			3.845	0.215	0.882***
AttSpo_5			4.954	0.229	0.918***
BetInt	0.840	0.510			
BetInt_1			5.389	0.176	0.840***
BetInt_2			13.647	0.169	0.853***
BetInt_3			12.279	0.166	0.838***
BetInt_4			2.259	0.100	0.710***
BetInt_5			2.248	0.108	0.741***
BetInt_6			2.741	0.101	0.729***
BetInt_7			2.039	0.085	0.613***
BetInt_8			2.636	0.119	0.795***
BetInt_9			2.496	0.104	0.725***
BetInt_10			1.412	-0.036	-0.303***
BetInt_11			1.763	-0.053	-0.420***
BetInt_12			3.033	0.114	0.772***
Congruency	0.862	0.693			
Congruency_1			1.979	0.296	0.819***
Congruency_2			2.268	0.467	0.908***
Congruency_3			4.678	0.195	0.818***
Congruency_4			4.207	0.223	0.778***
Contitnuity	0.954	0.916			
Contitnuity_1			4.044	0.350	0.937***
Contitnuity_2			9.874	0.347	0.975***
Contitnuity_3			7.562	0.348	0.959***
Credibility	0.868	0.884			
Credibility_1			2.432	0.509	0.935***
Credibility_2			2.432	0.554	0.945***
GamBeh			1.000	1.000	1.000***
Integrity	0.942	0.853			
Integrity_1			2.599	0.250	0.871***
Integrity_2			7.700	0.277	0.951***
Integrity_3			7.759	0.274	0.951***
Integrity_4			3.661	0.280	0.919***

*** $p < 0.001$. AttSpo Attitude toward the sponsor, BetInt Betting intention (BetInt), AVE average extracted variance, CR composite reliability.

involvement (Cornwell et al. 2000) [$F(1,204) = 0.501, p > 0.05$] and age were equal between the groups [$F(1,200) = 2.177, p > 0.05$]. These results demonstrate that assigning individuals to groups was appropriate.

Evaluation of the measurement model. Assessment of the model's internal consistency determines the relevance of each observable variable to its corresponding construct. In this regard, indicators such as Cronbach's alpha were observed and were found to be above 0.7, as recommended by Henseler et al. (2016) ($\alpha > 0.840$ in all cases). Convergent validity was analyzed using average extracted variance (AVE) values exceeding 0.510 in all cases. Table 2 presents the composite reliability (CR) and factor loadings of the observable variables relative to their respective latent variables. Loadings were reported at a significance level of $p < 0.001$.

Evaluation of the structural model. Bootstrapping was performed using 5000 repetitions in which all factor loadings were significant, except for H8b. The results in Table 3 validate H1, H2, H3, and H5, where significant and positive effects of continuity, integrity, credibility, and congruence on attitudes toward sponsors are observed. Furthermore, the results confirmed H4a, H4b,

and H4c, which postulated relationships between congruence, continuity, integrity, and credibility.

AttSpo showed a positive and direct relationship with the intention to bet (H6). Likewise, the intention to bet explains betting behavior; this effect is significant and highest within model (H7). On the one hand, the moderating effect of sponsorship type on the relationship between congruence and AttSpo exhibited a negative and significant impact at $p < 0.01$. However, this moderating variable did not yield the same effect between AttSpo and intention to bet. In fact, this moderating effect was not significant. Therefore, H8b was not supported Fig. 1.

Congruence, credibility, integrity, and continuity collectively accounted for 61.3% of the variance in AttSpo. This variable, in turn, explains 64.4% of the variance in betting behavior, considering the impact of the intention to bet variable ($R^2 = 5.56\%$). The estimated model is shown in Fig. 2.

Analysis of unobserved heterogeneity. Using FIMIX-PLS analysis, four segments were identified, effectively dividing the sample into distinct partitions, as shown in Table 4 (segment five was disregarded because its size was less than 8% of the sample). FIMIX-PLS facilitates comparison among these distinct segments. As advised by Hair et al. (2016), key indicators to consider include the modified Akaike Information Criterion (AIC3) and consistent Akaike Information Criterion (CAIC), with lower values indicating better segmentation solutions. However, according to Arenas-Gaitán et al. (2020), the entropy and segment size should be considered in selection prioritization.

The sizes of segments four and five represent at most 15% of the sample; therefore, they are not recommended for segment-based PLS-SEM analysis. Regarding the remaining segments, a notable emphasis is placed on the size of segment 2, along with other indicators, such as the entropy level exceeding 0.5, as recommended by Arenas-Gaitán et al. (2020). Consequently, PLS-POS analysis was performed using two partitions. Table 4 presents the results.

Once segment two was selected, PLS-POS estimation was conducted for each partition. The use of PLS-POS enhances impartiality and precision in segmentation by employing unobserved variables, thereby leading to a more comprehensive data explanation (Alonso Dos Santos et al. 2018).

In this context, an MGA was conducted to identify disparities between the path coefficients of the two segments, the results of which are presented in Tables 5 and 6. Although notable similarities were observed, it was observed that for Group 1, the relationship between credibility and attitude toward sponsorship matters, while for Group 2, it did not. Additionally, the CR and AVE indices were evaluated to validate the structural model. All indicators exceeded the recommended reference points for each segment.

The differences between the segments shown by the MGA indicate that the relationship of the variable "congruence" with respect to AttSpo, continuity, credibility, and integrity presents significant differences between the groups, thus validating the presence of variations in the sample that are influenced by the degree of congruence. Therefore, it is imperative to investigate the underlying reasons for the divergence between segments further.

Understanding that congruence represented significant differences in the estimation of PLS-POS by segments, with POS segmentation as the grouping variable, we conducted an ANOVA for each descriptive variable in the sample: age, gender, education level, employment, and salary. Individual self-congruence was evaluated in addition to these variables. The results revealed significant differences in the age of individuals in the first segment ($M = 36.2, SD = 12.2$) and second segment ($M = 39.1,$

Table 3 Evaluation of hypotheses.

Hypothesis	Relationship	Path coefficients	Result
H1	Continuity -> AttSpo	0.343***	Supported
H2	Integrity -> AttSpo	0.283***	Supported
H3	Credibility -> AttSpo	0.220**	Supported
H4a	Congruency -> Continuity	0.208***	Supported
H4b	Congruency -> Integrity	0.320***	Supported
H4c	Congruency -> Credibility	0.265***	Supported
H5	Congruency -> AttSpo	0.202**	Supported
H6	AttSpo -> BetInt	0.207**	Supported
H7	BetInt -> GamBeh	0.802***	Supported
H8a	Conventional/CGP × Congruency -> AttSpo	-0.193**	Supported
H8b	Conventional/CGP × AttSpo -> BetInt	0.049	Not Supported

p < 0.01, *p < 0.001. AttSpo Attitude toward the sponsor, BetInt Betting intention, GamBeh gambling behavior, CGP commercial gambling provider.

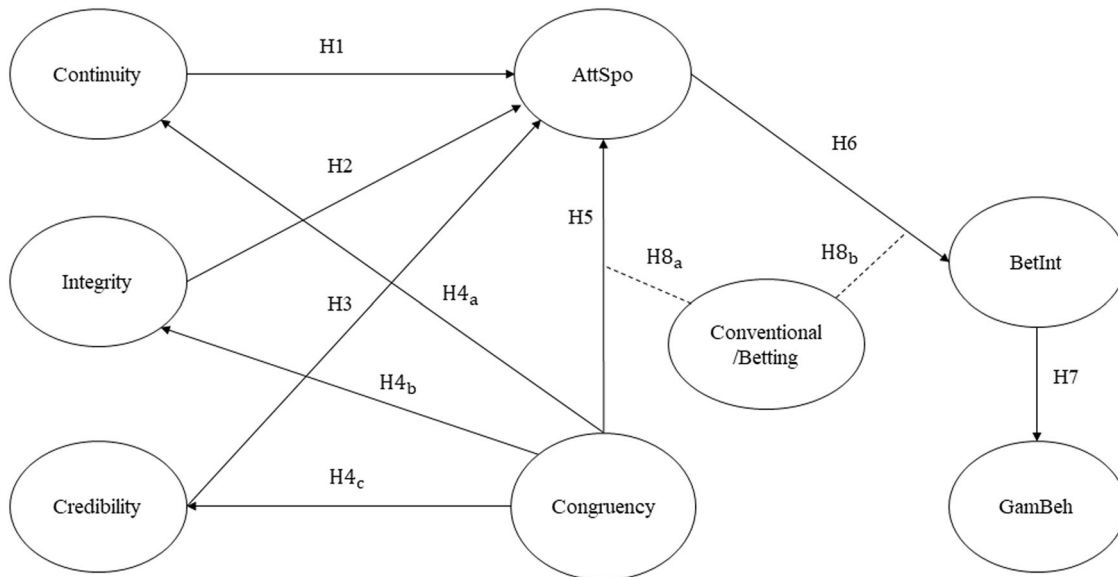


Fig. 1 Conceptual model. Relationships and hypotheses of the theoretical model.

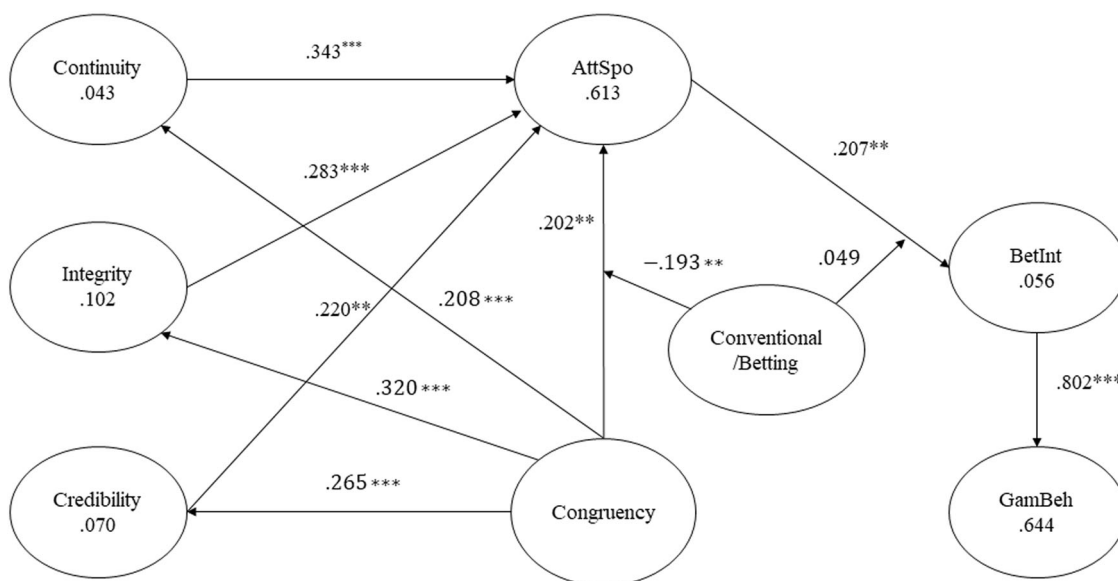


Fig. 2 Structural model estimation. **p < 0.01 ***p < 0.001. Values inside the circle are variance explained. Values in the paths are path coefficients.

Table 4 POS segments.

Number of segments	CAIC	AIC3	Entropy	Segment sizes				
				Segment 1	Segment 2	Segment 3	Segment 4	Segment 5
2	8.096	7.96	0.849	33.0.6%	67.4%			
3	7.909	7.704	0.747	46.6%	32.6%	20.8%		
4	7.777	7.502	0.729	34.2%	31.1%	19.6%	15.1%	
5	7.78	7.435	0.743	33.6%	24.2%	19.4%	15%	7.9%

AIC3 Akaike Information Criterion, CAIC Akaike Information Criterion.

Table 5 Multigroup analysis.

Parameter	Relationship between variables	Segment 1	Segment 2	Differences MGA (Segment 1-Segment 2)
Path coefficients	AttSpo -> BetInt	0.089**	0.247**	-0.158
	BetInt -> GamBeh	0.778***	0.825***	-0.048
	Congruency -> AttSpo	0.128**	0.493***	-0.365**
	Congruency -> Continuity	-0.483***	0.689***	-1.172***
	Congruency -> Credibility	-0.524***	0.698***	-1.222***
	Congruency -> Integrity	-0.439***	0.701***	-1.140***
	Continuity -> AttSpo	0.259***	0.279***	-0.020
	Credibility -> AttSpo	0.303**	0.127	0.177
	Integrity -> AttSpo	0.314***	0.182**	0.132
	Conventional/Betting × Congruency -> AttSpo	-0.035	0.193	-0.228
	Conventional/Betting × AttSpo -> BetInt	-0.207**	-0.284***	0.077
Composite reliability (CR)	AttSpo	0.949	0.96	
	BetInt	0.883	0.894	
	Congruency	0.874	0.906	
	Continuity	0.966	0.973	
	Credibility	0.942	0.935	
	Integrity	0.96	0.956	
Average extracted variance (AVE)	AttSpo	0.790	0.829	
	BetInt	0.505	0.514	
	Congruency	0.645	0.709	
	Continuity	0.906	0.923	
	Credibility	0.891	0.877	
	Integrity	0.858	0.843	

** $p < 0.01$, *** $p < 0.001$. AttSpo Attitude toward the sponsor, BetInt Betting intention, GamBeh gambling behavior, CGP commercial gambling provider.

Table 6 Binomial test.

	Category	N	Ratio	Bilateral significance
Self-congruence level	High	427	0.73	<0.001
	Low	155	0.27	
	Total	582	1	
Age	≤29	172	0.3	<0.001
	>29	410	0.7	
	Total	582	1	

SD = 12.9) [$F = 7.42, p = 0.007$]. Furthermore, average self-congruence also exhibited significant differences between individuals in the younger group ($M = 2.49, SD = 1.27$) and those in the older group ($M = 2.88, SD = 1.48$) [$F = 11.34, p < 0.001$].

Given this result, we performed an association analysis using a binomial test to explore the relationship between the level of self-congruity and the age of the participants. The null hypothesis (H_0) states that there is no association between self-congruence level and age group. The proportion of individuals with high self-congruence was the same in both age groups. The alternative hypothesis (H_a) indicates an association between self-congruity level and age group. Thus, the proportion of individuals with high

self-congruence differed between the two age groups. According to Ringle et al. (2010), there is a substantial correlation (60 percent) between how data are divided or grouped using FIMIX-PLS and how results are explained given a nonobservable variable. In this case, the variable “level of self-congruity” was created by dividing the database into two groups with respect to the median of the average self-congruity. Regarding age, classification tree analysis, as suggested by Ringle et al. was performed to determine the grouping criteria for the POS variable. The results of the analysis indicate that this variable presents differences between individuals younger than or equal to 29 years old and those older.

It is important to emphasize that the bilateral significance values obtained are highly significant. The highly significant result ($p < 0.01$) suggests that H_0 was rejected. This indicates that there is statistical evidence of a relationship between the level of self-congruity and age, where the distribution of high and low levels of self-congruity varies significantly between age groups less than or equal to 29 years and greater than 29 years, suggesting that the association between these two variables is unlikely to be due to chance.

This difference indicates that different age groups exhibit distinct tendencies toward self-congruence.

Conclusions

The sports betting industry, which is growing consistently (Etuk et al. 2022), is actively engaged in an ongoing cycle of innovation and progress. Its primary goals are to refine its strategies, foster stronger customer loyalty, and recruit new customers.

This research investigates the factors driving sports betting intentions and behavior, centering on the interplay of perceived sponsorship authenticity, congruence, and self-congruence. The model leverages several key theoretical frameworks. Primarily, TPB provides the foundation, positing that intentions shaped by attitudes, subjective norms, and perceived behavioral control directly predict behavior. Integrated within this framework is the concept of sponsorship effectiveness, where congruence (the perceived fit between sponsor and event) and brand authenticity play crucial roles. Brand authenticity is further explored through its dimensions: continuity (historical presence and consistency), integrity (ethical behavior and value), and credibility (trustworthiness and fulfilling promises).

The study itself by uniquely combining these concepts in the context of sports betting empirically demonstrates the positive relationships between authenticity dimensions, congruence, and attitudes toward the sponsor. Furthermore, by adopting social identity theory (SIT), the research provides a novel understanding of how sponsor type (conventional vs. CGP) moderates the congruence-attitude relationship.

A significant point in examining sports betting sponsorships is the adoption of marketing approaches that affect consumer attitudes and actions. Killick and Griffiths (2022) emphasized this emerging trend, underscoring how the research contributes to understanding how CGP advertisements are introduced to the public and the extent of their influence. However, sports gambling can have risk factors and negative qualities, such as negative mood, depression, feelings of guilt, anxiety, problem gambling/compulsive gambling, financial problems, addiction, and physical and mental health problems, and both the individual and his/her family and social environment can be negatively affected by this situation (Gökçe Yüce et al. 2022). Here, we see a clear example of TPB (Godin and Kok, 1996), which postulates that the intention to perform a specific behavior is the most direct predictor of actual behavior. That is, the stronger the favorable attitude toward the behavior, the subjective norm, and the perceived control over the behavior, the greater the intention to perform the behavior and, therefore, the likelihood that the behavior will be performed. Therefore, it is necessary to study how CGPs influence sports fan behavior through sponsorship.

This study clarifies consumers' intentions and actions in relation to advertising elements offered by CGPs. In addition, using PLS-POS, we performed unobserved segmentation to explain gambling behavior among different consumer groups.

The results of this research show that all hypotheses are supported, except hypothesis (H8b). The first three hypotheses (H1, H2, and H3) confirm that continuity, credibility, and integrity positively influence attitudes toward the sponsor, as proposed by Charlton and Cornwell (2019). These dimensions measure the perception of the relationship between the property and sponsor by enhancing, individualizing, and detailing the effect of the evaluation based on attribute similarity (congruence). Congruence correlates positively with each dimension of perceived authenticity (H4a, H4b, and H4c) (Morhart et al. 2015) and directly influences attitudes (H5). Including the perceived authenticity scale in the research allows us to measure the perceived associations between sponsors and property more accurately, empirically support the findings of Charlton and Cornwell (2019), and test the ability of each scale. Each scale focuses on slightly different aspects. Charlton and Cornwell's authenticity scale focuses on the perceived authenticity and consistency of

relationships, while Speed and Thompson's (2000) perceived fit scale assesses the perceived fit and compatibility between entities and brands. As shown in Table 2, the standardized path coefficient was higher for all dimensions of the authenticity scale than the loading coefficient of the perceived fit scale.

As expected, attitude positively influenced gambling intention (H6) and gambling intention positively influenced gambling behavior (H7). The relationship between attitudes and behaviors is widely supported in the context of sports and gambling. Alonso-Dos-Santos et al. (2023) found in the UK that attitude toward the sponsor positively influences betting intention when the sponsor is a CGP, but there is no significant relationship when the sponsor is congruent (sports brand). Our research shows that congruence influences attitude toward the sponsor only when the sponsor is conventional (we could assume congruence according to Alonso-Dos-Santos et al. 2023) and not when the sponsor is a CGP (H8a). In contrast, the attitude toward the sponsor influences betting intention, regardless of the sponsor type (H8b). These results do not align with those of Alonso-Dos-Santos et al. (2023); our results indicate that CGP sponsors are perceived as incongruent. Therefore, the image transmission process needs to be completed. The results also indicate that an attitude toward the sponsor ultimately increases the intention to bet. This result could have negative consequences for fans if it increases betting behavior. To test how the type of sponsor might indirectly influence betting behavior through attitudes, we conducted an indirect effect analysis. The coefficient of the p -value is not significant. Therefore, no indirect effects were found ($p = 0.068$). In other words, sponsor type does not exert an indirect effect on betting behavior.

Regarding PLS-POS results, segments were obtained within the analysis of unobserved heterogeneity. The main differences between the groups (Table 4) were concentrated in the relationships among congruence, authenticity, and AttSpo. In group 1, the relationship between congruence and authenticity was negative, and the relationship between congruence and AttSpo was weaker than that in group 2. We found that the differences between groups were due to self-congruence and age (individuals older and younger than 29 years). Group 1 comprises subjects with low self-congruence, and those under 29 belong to the group called digital natives, which includes both Generation Y or Millennials and Generation Z (Prensky, 2001). Group 2 is composed of subjects with high self-congruence, and individuals older than 29 years are referred to as Generation X. Age is a critical element in terms of individuals' attitudes toward gambling, and it has also been found that the younger the individual (below 29 years of age), the lower the level of self-congruence.

Age is an essential variable for dividing individuals with different levels of self-congruence makes much sense. Several studies related to the behavior of the millennial generation and the previous generation on their attitude toward sports betting found that younger individuals, those belonging to the millennial generation, had only been exposed to the ads a couple of times, while older individuals (Gen X) expected up to at least having an exposure of five times (SBTech, 2017). According to mere exposure theory, the frequency of exposure influences congruence and attitudes toward the sponsor (Tom et al. 2007). According to Bellenger et al. (1976), age is one of the most influential variables in the predictive virtuality of the congruence between self-concept and brand image. Therefore, it can be argued that younger individuals do not consider a brand or a sporting event but that their intention to bet is above, considering both variables. Millennials have a self-concept that is more linked to new technologies and is driven by contextualized behavior in social networks (Burnasheva and Suh, 2020). The behavior of older individuals, on the other hand, is different. Generation X is tech-savvy,

although it grew up with only some ICTs, like the next generation, and synthesized diverse information to gain knowledge and understanding (Stuenkel et al. 2005).

In contrast to the optimism of Baby Boomers, Generation X is pessimistic, cynical, socially insecure, and lacks established traditions (Barford and Hester, 2011). They are often characterized as individualistic, self-reliant (Gursoy et al. 2008), or skeptical (Crumpacker and Crumpacker, 2007). The years in which Generation X grew up were marked by the economic recessions of the early 1980s and 1990s, so they are well aware of the value of money and the cost of earning and keeping it. Consequently, these individuals are more likely to make gambling investments when they feel a real and solid connection between the event, brand, and self-concept (Lissitsa and Laor, 2021).

However, according to Suh et al. (2017), millennials are the largest generational consumers of sports betting, with more than a quarter participating. They were the most supportive of legalized sports betting (70% versus 55% of boomers) and had the most favorable opinion of the practice (68% versus 41%). The younger market does not have older generations' misgivings about gambling, making them a more docile group (Yim and Byon, 2020).

In terms of our contributions, we first managed to pinpoint fan groups that were only occasionally evident by analyzing their behavior in sports betting. Second, we uncovered how the nature of sponsorship messages can influence and moderate the transfer of images and intentions. Finally, we examined the effects of factors associated with the perceived authenticity of sponsorship on betting behavior. This aspect has not been explored in previous studies.

Managerial implications. Regarding the implications for CGP, we recommend improving brand attitude by implementing activation-articulation actions through commercial promotion. These strategies were found to be effective in previous studies (Na and Kim, 2013). According to Moreno et al. (2017), millennials are more attracted to virtual advertising. However, this could be a risky strategy because of the low level of event engagement and brand loyalty this group might have (Hershatter and Epstein, 2010). As for Group 2, keeping the main objective of increasing brand attitude, CGP brands should inquire into the most relevant attributes of CGP brand image and the event. In this way, the CGP brand could communicate personalized information to this group. Thus, increasing identification with the event and brand impacts congruence and attitude. For example, Parker and Fink (2010) found that identification ultimately influences attitudes.

The main recommendation for sports event managers is to engage with younger fans by employing social media, especially a co-creation strategy (Qian and Seifried, 2023). Segmenting communication strategies according to the medium is relatively straightforward. Establishing an emotional attachment to the event in Group 1 would also be interesting. Some studies have reported higher levels of emotional bonding as a function of sports practice and rivalry intensity during sporting events (H.-W. Lee et al. 2020; M. Lee et al. 2019).

Concerning the implications for public policy, significant levels of attitudinal transmission toward intention to gamble were reported in both groups, although no spillover effect was observed. This study could not demonstrate the need to target specific public actions aimed at preventing the sponsorship of sporting events by CGPs.

Limitations and future research directions

The main limitations of this study relate to extrapolation and comparison with other countries, cultures, or territories. Previous research on sponsorship and gambling has been conducted in the United Kingdom and Australia. There are differences between

Anglo-Saxon countries, implying that there are significant differences in countries with more cultural diversity. The prohibition of online sports betting is present in some countries (e.g., Chile), while in others it is not (Spain). This is a limitation and an opportunity to study the market and possible betting intentions based on the current legal status. In summary, we must carefully extrapolate the results of this study to other regions. Future research can make cultural and legal comparisons or discover different segments. This study used the same brands as those used in Alonso-Dos-Santos et al. (2023) for comparison. Nonetheless, the manner in which a stimulus is introduced and structured can lead to altered responses. It would be intriguing to assess visual attention directed at stimuli (sponsor brands) using eye-tracking technology and to gauge the level of cognitive alignment through electroencephalography, thus reducing reliance on self-report assessments. Such an undertaking advances our comprehension of how brand attitudes develop. Additionally, a more comprehensive examination of the two facets of self-congruence, both real and ideal, would be essential.

Data availability

The datasets generated and/or analyzed during the current study are available from the corresponding author upon reasonable request.

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Author contributions

All authors contributed equally to this work.

Competing interests

The authors declare no competing interests.

Ethical approval

This study was conducted in line with the principles of the Declaration of Helsinki. Approval was granted by The Ethics, Bioethics, and Biosafety Committee of the Universidad Católica de la Santísima Concepción. Committee 03/12/2019.

Informed consent

This study did not reveal any personal information. All participants signed an informed consent form, which was required by the university.

Additional information

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